

MACHINE SERVICE BULLETIN #126

SUBJECT: Additional Dial Clearing
Mechanism for MA Model

DATE: February 10, 1932

TO ALL OFFICES:

We are issuing herewith, Machine Service Bulletin #126. Plates #1 to #3 inclusive, illustrate and describe additional dial clearing mechanism for the MA model. Plate #4 covers the parts list.

It will be noted that this mechanism will simultaneously clear out the registering and accumulator dials if desired and also clear out the accumulator dials to the left of the split independently by the operation of an additional clearout lever.

To equip MA stock machines in the Field with this feature necessitates forwarding the REAR CARRIAGE ONLY TO ORANGE for conversion. In such cases we will convert it and return it together with the necessary mechanism that is to be added to the front carriage, all of which is to be assembled and adjusted in the manner described in this Bulletin.

J. M. Smith

General Service Manager

FMS:LJ
Enclosure

MACHINE SERVICE BULLETIN No. 126-PLATE I

SUBJECT:- ADDITIONAL DIAL CLEARING MECHANISM FOR M.A. MODEL.

IN SETTING UP A MACHINE WITH THE CARRIAGES EQUIPPED WITH THIS MECHANISM, PROCEED AS FOLLOWS: ASSEMBLE FRONT AND REAR CARRIAGES AS ILLUSTRATED AND DESCRIBED IN MACHINE SERVICE BULLETIN No. 116.

- ① ATTACH UNIT (A) TO DIAL SHAFT (B) AS SHOWN, AND SECURE WITH LOCK WASHER AND SCREW.

- ② ATTACH LEVER (C) TO DIAL SHAFT (D) AND SECURE WITH LOCK WASHER AND SCREW.

- ③ DO NOT DISTURB SCREWS (E) AND (F), AS THEY CONTROL THE ADJUSTMENT OF THIS MECHANISM. SEE PLATE 2 FOR DETAILS.

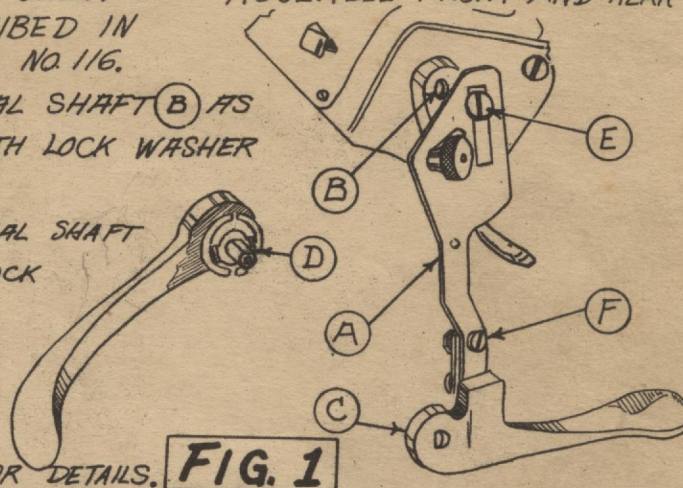


FIG. 1

- ④ ATTACH DIAL CLEARING LEVER TO LEFT HAND END OF SHAFT (REAR CARRIAGE) AND SECURE IN PLACE WITH SET SCREW. SEE FIG. 2.

⑤ - EXPLANATION OF OPERATION -

ACCUMULATOR DIALS LEFT OF SPLIT CAN BE CLEARED WITH LEVER No 4 - WITH SHIFT LEVER No 5 LOCATED IN $\frac{1}{2}$ POSITION.

ALL ACCUMULATOR DIALS CAN BE CLEARED WITH LEVER No 4 - WITH SHIFT LEVER No 5 LOCATED IN 0 POSITION.

WITH KNOB (A) LOCATED IN BOTTOM OF SLOT (G)

REGISTERING AND ACCUMULATING DIALS CAN BE CLEARED SIMULTANEOUSLY WITH LEVER (2) AND SHIFT LEVERS (5) AND (6) IN 0 POSITION - OR $\frac{1}{2}$ DIALS CAN BE RESET IN REGISTERING AND ACCUMULATOR DIALS WITH SHIFT LEVERS No (5) AND (6) IN $\frac{1}{2}$ POSITION - OR LEVER No (3) CAN BE USED FOR CLEARING THE ACCUMULATOR DIALS TO THE RIGHT OF THE $\frac{1}{2}$ DIAL.

WITH KNOB (A) LOCATED AT TOP OF SLOT (G) LEVER No. 2 CLEARS

REGISTERING DIALS ONLY AND THE MECHANISM IS SET FOR INDIVIDUAL CLEAR OUT.

NOTE: IN CONJUNCTION WITH THIS MECHANISM, THE LEFT HAND CARRIAGE LIFT SUPPORT 30-653X1 IS CONSTRUCTED AS SHOWN BELOW, TO OBTAIN CLEARANCE FOR THE EXTENSION OF THE ACCUMULATOR DIAL SHAFT. IT WILL ALSO BE NOTED THAT THE LEFT HAND END OF THE REAR CARRIAGE SHELL IS SLOTTED FOR THIS PURPOSE.

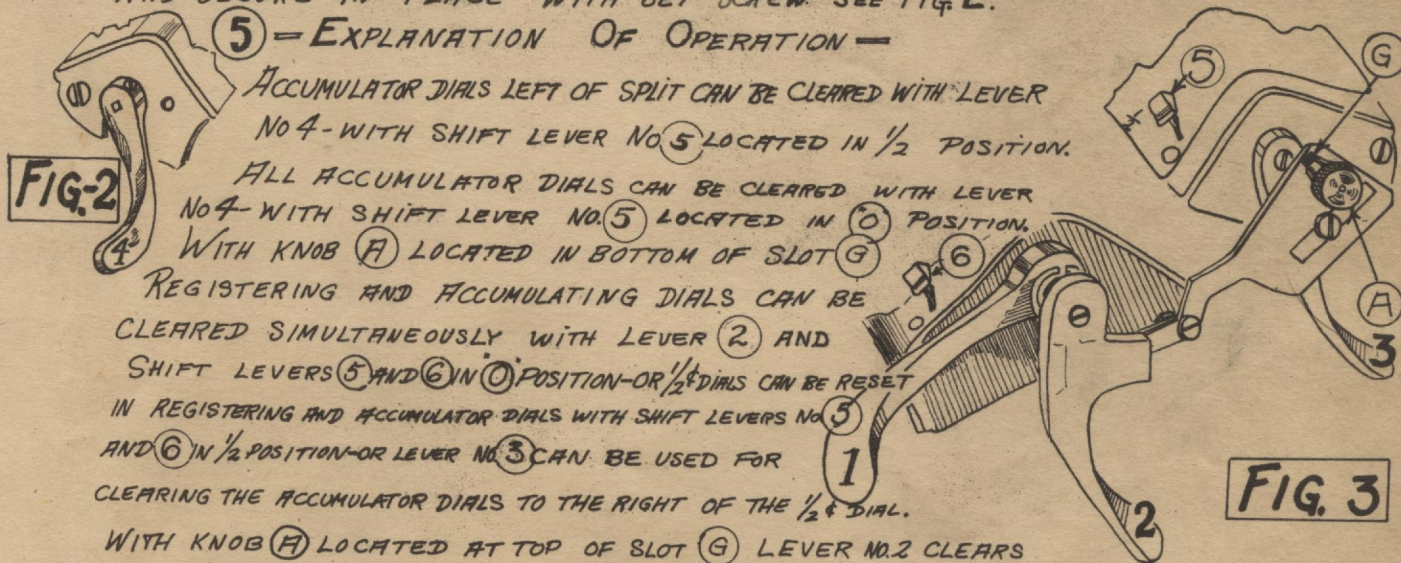


FIG. 3

FIG. 4



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PLATE 2

HOW TO REMOVE DIAL CLEARING LEVERS MECHANISM FROM CARRIAGES.

- ⑥ TO REMOVE EITHER CARRIAGE, LOOSEN AND LOCATE (A) UPWARD IN SLOT (B) AND TIGHTEN (A)

NOTE: DO NOT DISTURB ADJUSTMENT SCREWS (G) AND (L)

- ⑦ REMOVE SCREW AND WASHER (C)

- ⑧ LIFT OFF HANDLE (D) FROM REGISTERING DIAL SHAFT AND POSITION UNIT (E) WITH SCREW (G) LOCATED AT (F).

- ⑨ REMOVE SCREW AND WASHER (H) AND UNIT (E) FROM ACCUMULATOR DIAL SHAFT.

- ⑩ EITHER CARRIAGE CAN NOW BE REMOVED AS EXPLAINED IN MACHINE SERVICE BULLETIN No. 116.
= HOW TO DISMANTLE UNIT (E) =

- ⑪ REMOVE THUMB SCREW (A). ⑫ REMOVE SCREW (G) AND SPACING WASHER.

- ⑬ REMOVE SCREW (L) WITH LOCK WASHER AND NUT (J).
= HOW TO ASSEMBLE =

- ⑭ ASSEMBLE THUMB SCREW (A) TO STUD (M) AND POSITION (A) IN BOTTOM OF SLOT AS SHOWN IN FIGURE (6).

- ⑮ POSITION SPACING WASHER (N) IN BACK OF (R) AS SHOWN AND PLACE ASSEMBLY (R) WITH WASHER (N) ON TOP OF LEVER (X). INSERT SCREW (P) TEMPORARILY.

- ⑯ PLACE (R) OVER (Q). SLOT (T) ENTERING GUIDE STUD (U). INSERT SCREW (L) IN SLOTS (V) AND SECURE WITH LOCK WASHER AND NUT (J). SEE FIGURE (5).

- ⑰ TO ASSEMBLE UNIT (E) TO DIAL CLEAR OUT SHAFTS SEE PLATE 1 FIGURE 1
= ADJUSTMENT NOTES =

- ⑱ LOCATE (A) AS SHOWN IN FIGURE (5). HOLD LEVER (X) TOWARD THE REAR OF MACHINE. POSITION SHOULDER OF WASHER (N) AGAINST SURFACE OF (Y) AT POINT (S). TIGHTEN SCREW (P) SECURELY.

- ⑲ WITH (A) LOCATED IN THE SAME POSITION, CLEAR THE CARRIAGES WITH FRONT LEVERS NO. (1) AND (2). IF REAR CLEAR LEVER (X) COMPLETES ITS CLEARING STROKE BEFORE THE FRONT CARRIAGE HAS COMPLETELY CLEARED, THE CONNECTING LINK (E) IS TOO SHORT AND MUST BE READJUSTED BY LENGTHENING. LOOSEN SCREW (L) AND NUT (J) AND REPOSITION LINKS (E) AND (Q) TO SUIT. IF THE FRONT CLEAROUT LEVER COMPLETES ITS CLEARING STROKE BEFORE THE REAR CARRIAGE HAS COMPLETELY CLEARED, THE LINK (E) IS TOO LONG AND SHOULD BE SHORTENED BY REVERSING THE ABOVE OPERATIONS OF ADJUSTMENT. AFTER THE CORRECT ADJUSTMENT IS MADE, TIGHTEN SCREW (L) WITH NUT (J) SECURELY. THIS OPERATION SHOULD BE TESTED WITH ONES REGISTERED IN THE REGISTERING AND ACCUMULATOR DIALS.

NOTE: UNIT (E) MUST OPERATE FREELY IN SLOT (Z).

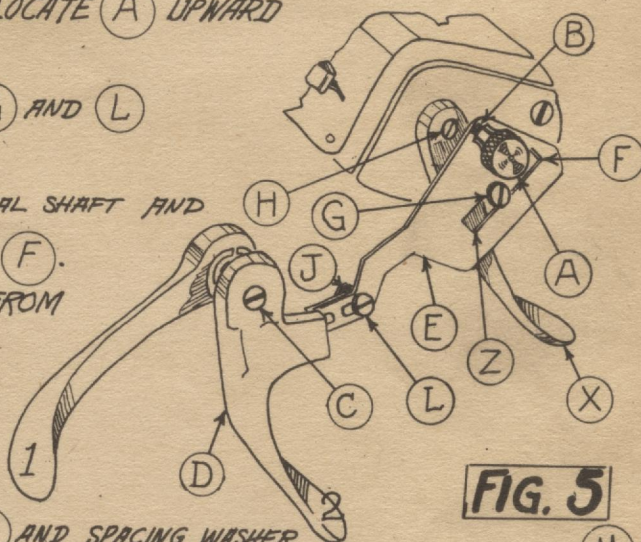


FIG. 5

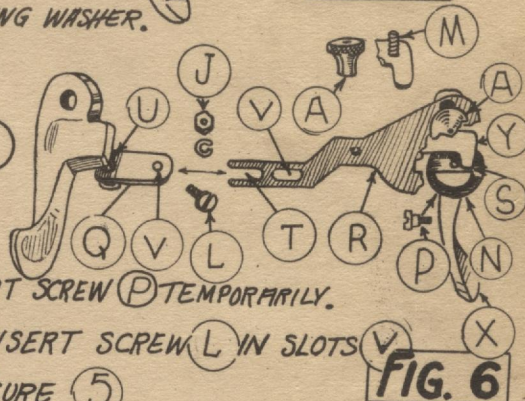


FIG. 6

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CHANGES MADE IN REAR CARRIAGE MECHANISM.

PLATE 3

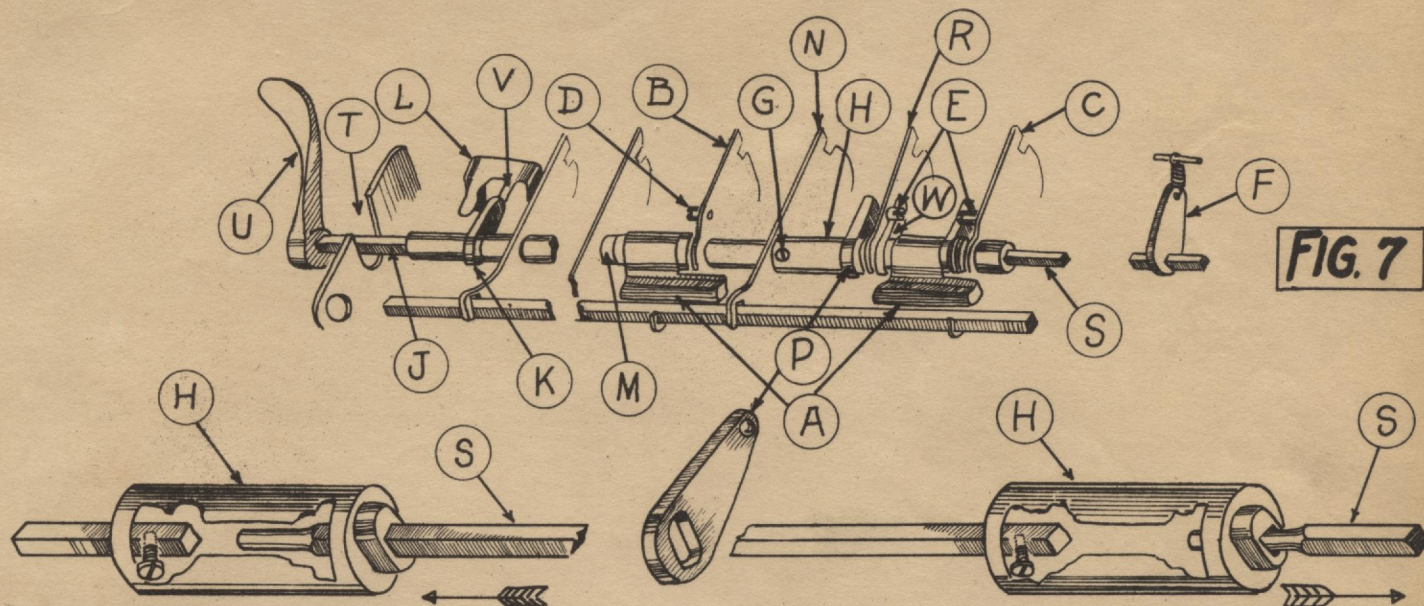


Fig. 8 "O" POSITION OF \odot ENGAGING \odot H

$\frac{1}{2}$ POSITION OF \odot DISENGAGING \odot H **Fig. 9**

(20) \odot REAR CARRIAGE LIFT CAMS. \odot PARTITION PLATE TO RIGHT OF LEFT LIFT CAM \odot A. \odot PARTITION PLATE TO RIGHT OF RIGHT LIFT CAM \odot F. LEVER FOR RETURN SPRING OF RIGHT HAND TOTALIZER DIAL SHAFT \odot S. \odot SET SCREW FOR CLUTCH COLLAR \odot H. \odot CLUTCH COLLAR. \odot J LEFT HAND REAR CLEAROUT SHAFT. \odot L PAWL FOR ACCUMULATOR DIALS. \odot M SPACER LEFT OF LEFT HAND LIFT CAM \odot A. \odot P CLEAROUT ARM ASSEMBLY FOR DIAL LEFT OF $\frac{1}{2}$ DIAL. \odot R PARTITION PLATE TO LEFT OF $\frac{1}{2}$ DIAL. \odot S RIGHT HAND REAR CLEAR OUT SHAFT. \odot T CLEARANCE SLOT FOR \odot J. \odot U LEFT HAND CLEAR LEVER. \odot W $\frac{1}{2}$ CLEAROUT LEVER (SAME AS $\frac{1}{2}$ IN FRONT CARRIAGE).

(21) TO REMOVE ACCUMULATOR DIAL SHAFTS \odot J AND \odot S TAKE OUT SCREW \odot G IN COLLAR \odot H AND PROCEED AS INSTRUCTED IN MACHINE SERVICE BULLETIN No. 116.

— ADJUSTMENT NOTES —

(22) IF SHAFT \odot S DOES NOT SHIFT FREELY, ECCENTRIC ADJUSTING STOP STUDS \odot E ARE PROVIDED FOR ADJUSTING THE SQUARE HOLES IN THE LEVERS. FOR DETAILS OF THIS ADJUSTMENT SEE OPERATION NO. 43 PLATE 6, AND OPERATION NO. 52 PLATE 7 OF MACHINE SERVICE BULLETIN No. 116. IF SHAFT \odot S DOES NOT SHIFT FREELY INTO COLLAR \odot H, ECCENTRIC STOP STUD \odot D IS PROVIDED FOR ADJUSTMENT.

(23) PAWLS \odot L ARE PROVIDED WITH TAIL \odot V WHICH RESTS ON TOP OF ARM \odot K SO THAT WHEN THE DIALS ARE CLEARED, ARMS \odot K LIFT PAWLS \odot L OUT OF ENGAGEMENT WITH THE DIAL GEARS.

Parts List

<u>Part No.</u>	<u>Name</u>
70	Lock Washer.
583	Return arm spring.
1389	Nut.
2018	Adjusting screw for link.
2170xl	Set screw for L. H. handle.
2170-Ex1	Set screw for clutch collar.
3503xl	R. H. rear clearout shaft. 8 bank
3503-1/16	L. H. rear clearout shaft. 10 bank
3503-1/8	L. H. rear clearout shaft. 8 bank
3503 $\frac{1}{2}$ xl	R. H. rear clearout shaft. 10 bank
3520 $\frac{1}{4}$	Plain partition plate.
3545-1/8	Clutch collar.
3549 $\frac{1}{4}$ xl	Lift cams.
3576	Rear R. H. clearout handle.
3576-1/8	Rear L. H. clearout handle.
3908	Return arm for R. H. clearout shaft.
3946-1/8	Spacer left of L. H. lift cam.
3957 $\frac{1}{4}$	Lock knob for clearout latch.—
3958	Screw stud in rear handle.
3958 $\frac{1}{4}$	Guide spacer for clearout link.
30-503	Front clearout handle.
30-504	Clearout link assembly.
30-653xl	L. H. carriage lifter.
35-20	Partition plate right of lift cam.
35-20 $\frac{1}{4}$ xl	Partition plate left of $\frac{1}{2}$ cent dial.
35-505-1/8	Clearout arm and fingers for dial left of $\frac{1}{2}$ cent dial.

Mr. B. P. James,
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Parts List

<u>Part No.</u>	<u>Name</u>
70	Lock Washer.
888	Return arm spring.
1382	Nut.
2018	Adjusting screw for link.
2170x1	Set screw for L. H. handle.
2170-2x1	Set screw for clutch collar.
2202x1	R. H. rear clearest shaft. 8 bank
2202-1/16	L. H. rear clearest shaft. 10 bank
2202-1/8	L. H. rear clearest shaft. 8 bank
2202-2x1	R. H. rear clearest shaft. 10 bank
2202	Plain partition plate.
2242-1/8	Clutch collar.
2242x1	Lift cam.
2272	Rear R. H. clearest handle.
2272-1/8	Rear L. H. clearest handle.
2302	Return arm for R. H. clearest shaft.
2342-1/8	Spacer left of L. H. lift cam.
2342	Lock knob for clearest shaft.
2352	Screw stud in rear handle.
2352 1/2	Guide spacer for clearest link.
23-203	Front clearest handle.
23-204	Clearest link assembly.
23-223x1	L. H. carriage lifter.
23-20	Partition plate right of lift cam.
23-20x1	Partition plate left of 1/2 cent dial.
23-208-1/8	Clearest arm and fingers for dial left of 1/2 cent dial.